

Applicant: MICHAEL F. O'ROURKE
Title: METHODS OF DISTINGUISHING BETWEEN
VASOCONSTRICITION AND VASODILATION
AS A CAUSE OF HYPOTENSION

Listing of the Claims:

1. (Original) A method for measuring the arterial waveform invasively or non-invasively from a peripheral artery, wherein the waveforms are accurately recorded and secondary pressure waveforms are identified.
2. (Original) A method according to claim 1 wherein a series of pressure waveforms are ensemble-averaged into a single waveform to provide consistency of waveform detail.
3. (Original) A method according to claim 1 wherein the waveforms are subjected to harmonic analysis and moduli of their harmonic components are compared.
4. (Original) A method according to claim 1 wherein a hypotensive individual is confirmed to have the higher (second and above) greater than the first harmonic can be considered as having vasoconstriction as a cause of hypotension.
5. (Currently Amended) A method according to claim 1 wherein a hypotensive individual in sinus rhythm or without significant arrhythmia is confirmed to have the lowest fundamental harmonic, at heart rate less than 120/min, dominant over all the other harmonics and can be concluded as likely to have ~~vasodilatation~~ vasodilation as the cause of hypertension.
6. (Currently Amended) A method according to claim 1 ~~any one of claims 1 to 5~~

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wherein, in the hypotensive individual, amplitude of the primary wave waveform (peak to wave foot) is compared to amplitude of the secondary waveform (secondary peak to wave foot) and the secondary wave confirmed to have amplitude less than 25% of the primary initial waveform as denoting hypotension due to vasodilation whereas amplitude of the secondary waveform greater than 30% of the primary initial wave denotes hypotension due to vasoconstriction and acute blood loss, cardiac failure, tamponade or pulmonary embolism.